Parameters of Monetary Policy in India *

Friends

It is a great honour to be asked to deliver an invited lecture at the annual conference of the Indian Econometric Society and I am grateful to the organisers for this opportunity. For obvious reasons, including the growing interest in monetary policy, I intend presenting before you the parameters of monetary policy in India. In the first part of this lecture, I propose to give a general overview of the parameters of monetary policy. In the second part, I would touch upon the international experience in this regard with a particular focus on changing contours. The third part contains a description of evolving parameters of monetary policy in India beginning with a brief description of the process of policy making. The fourth part would highlight the impressive gains made dring the reform period so far, in regard to statutory preemptions, deregulation of interest rates, financial and external stability despite the persisting fiscal deficits and large market borrowing programmes. The concluding part sets forth immediate tasks before the Reserve Bank of India in its conduct of monetary policy.

Parameters of Monetary Policy
Objectives

It is generally believed that central banks ideally should have a single overwhelming objective of price stability. In practice, however, central banks are responsible for a number of objectives besides price stability, such as currency stability, financial stability, growth in employment and income. The primary objectives of central banks in many cases are legally and institutionally defined. However, all objectives may not have been spelt out explicitly in the central bank legislation but may evolve through traditions and tacit understanding between the government, the central bank and other major institutions in an economy.

Of late, however, considerations of financial stability have assumed increasing importance in monetary policy. The most serious economic downturns in the recent years appear to be generally associated with financial instability. The important questions for policy in the context of financial instability are the origin and the transmission of different types of shocks in the financial system, the nature and the extent of feedback in policy and the effectiveness of different policy instruments.

Transmission Mechanism

Monetary policy is known to have both short and long-term effects. While it generally affects the real sector with long and variable lags, monetary policy actions on financial markets, on the other hand, usually have important short-run implications. Typical lags after which monetary policy decisions begin to affect the real sector could vary across countries. It is, therefore, essential to understand the transmission mechanism of monetary policy actions on financial markets, prices and output. Central banks form their own views on the transmission mechanism based on empirical evidence, and their monetary strategies and tactics are designed, based on these views. However, there could be considerable uncertainties in the transmission channels depending on the stages of evolution of financial markets and the nature of propagation of shocks to the system.

The four monetary transmission channels, which are of concern to policy makers are: the quantum channel, especially relating to money supply and credit; the interest rate channel; the exchange rate channel, and the asset prices channel. Monetary policy impulses under the quantum channel affect the real output and price level directly through changes in either reserve money, money stock or credit aggregates. The remaining channels are essentially indirect as the policy impulses affect real activities through changes in either interest rates or the exchange rate or asset prices. Since none of the channels of monetary transmission operate in isolation, considerable feedbacks and interactions, need to be carefully analysed for a proper understanding of the transmission mechanism.

The exact delineation of monetary policy transmission channels becomes difficult in the

Strategies and Tactics

It is important to distinguish strategic and tactical considerations in the conduct of monetary policy. While monetary strategy aims at achieving final objectives, tactical considerations reflect the short run operational procedures. Both strategies and tactics for monetary management are intricately linked to the overall monetary policy framework of a central bank. Depending upon the domestic and international macroeconomic developments, the long run strategic objective could change, leading to a change in the nature and the extent of short run liquidity management.

The strategic aspects of monetary management crucially depend on the choice of a nominal anchor by the central bank. In this regard, four broad classes of monetary strategies could be distinguished. Two of these, viz., monetary targeting and exchange rate targeting strategies, use a monetary aggregate and the exchange rate respectively as an explicit intermediate target. The third, viz., multiple indicator approach, does not have an explicit intermediate target but is based on a wide range of monetary and financial indicators. The fourth, viz., inflation targeting, also does not have an intermediate target, but is characterized by an explicit final policy goal in terms of the rate of inflation.

In the 1970s when monetary policy came into prominence, many countries adopted either money supply or exchange rate as intermediate targets. During the late 1980s, these paradigms started to change following globalization, technological advancements and large movement of capital across national boundaries.

In view of difficulties in conducting monetary policy with explicit intermediate targets, of late, some countries are switching to direct inflation targeting, which works by explicitly announcing to the public the goals for monetary policy and the underlying framework for its implementation. In this framework, the monetary authorities have the freedom to deploy the instruments of monetary policy to the best of their capacities, but are limited in their discretion of policy goals. The framework is advocated on the ground that it clearly spells out the extent of central bank accountability and transparency.

In reality, monetary policy strategy of a central bank depends on a number of factors that are unique to the country and the context. Given the policy objective, any good strategy depends on the macroeconomic and the institutional structure of the economy. An important factor in this context is the degree of openness of the economy. The more open an economy is, the more the external sector plays a dominant role in monetary management. The second factor that plays a major role is the stage of development of markets and institutions: with technological development as an essential ingredient. In a developed economy, the markets are integrated and policy actions are quickly transmitted from one sector to another. In such a situation, perhaps it is possible for the central bank to signal its intention with one single instrument.

Operating Procedures

Operating procedures refer to the choice of the operational target, the nature, extent and the frequency of different money market operations, the use and width of a corridor for market interest rates and the manner of signaling policy intentions. The choice of the operating target is crucial as this variable is at the beginning of the monetary transmission process. The operating target of a central bank could be bank reserves, base money or a benchmark interest rate. While actions of a central bank could influence all these variables, it should be evident that the final outcome is determined by the combined actions of the market forces and the central bank.

The major challenge in day-to-day monetary management is decision on an appropriate level of the operating target. The success in this direction could be achieved only if the nature and the extent of interaction of the policy instruments with the operating target is stable and is known to the central bank. As the operating target is also influenced by market movements, which on occasions could be extremely volatile and unpredictable, success is not always guaranteed. Further, success is also dependent on the stability of the relationship between the operating target and the intermediate target. In a monetary targeting framework, this often boils down to the stability and the predictability of the money multiplier. In an interest rate targeting framework, on the other hand, success depends upon the strength of the relationship between the short-term and the long-term interest rates. Finally, the stability of the relationship between the intermediate and

eliminate an element of surprise, which is useful on occasions with respect to the central bank's operations in financial markets.

International Experience

In the conduct of monetary policy, although the experiences and the choices made by individual countries vary, recent surveys highlight a number of common features, viz.,

- ? First, at the macro level, there is now widespread concern about the potential harmful effects of persistently high fiscal deficits as it may lead to excessive monetisation.
- ? Second, there have been significant reductions in the reserve ratio to relieve the pressure on the banking sector and reduce the costs of intermediation. In fact, a number of countries now have no reserve requirement;. And, in some countries, the level of minimum deposit at the central bank has fallen to such low levels that it is no longer considered an active monetary instrument.
- ? Third, the deepening of financial markets and the growth of non-bank intermediation have induced the central banks to increase the market orientation of their instruments. A consequence of this is a greater activism of central banks in liquidity management.
- ? Fourth, the greater activism through indirect instruments led to a more intensive use of open market operations (OMO) through flexible instruments like repo. The OMO can be used for net injection or absorption of liquidity and can be resorted to irrespective of whether the operating target works through the rate channel or quantity channel.
- ? Fifth, the market environment has induced many central banks to focus more on the interest rates rather than bank reserves in trying to influence liquidity.
- ? Sixth, increasing evidence of market integration implies that central banks can concentrate on the very short end of the yield curve. There is growing evidence in favour of co-movements of interest rates of different maturity. This has simultaneously increased monetary policy challenges, as central banks have to keep a watchful eye on all markets and be cautious of any cascading effect or contagion emerging in the domestic economy or originating in a foreign economy.
- ? Seventh, at an operational level, while there is increasing transparency on the long-run strategic objective, central banks may not disclose their tactical considerations as some maneuverability in influencing the market is required. However, in many cases information is revealed to the market with a lag. Many central banks also attempt to estimate market expectations directly through surveys. While market expectations play a major guidepost in formulating monetary strategies, information management plays a crucial role for short-run stabilisation.
- ? Eighth, a notable consequence of recent financial and currency crises has been the increasing emphasis on the quantity and quality of data dissemination, i.e., adequate, timely and reliable information in a standardized form.
- ? Ninth, a number of central banks now also disseminate the minutes of the meetings of major monetary policy decisions, which help to gain credibility and in building a reputation of the central bank in achieving the objectives of monetary policy.
- ? Tenth, an important issue is policy coordination between the fiscal and the monetary authorities. The stance of fiscal policy is important as it has a much broader spectrum of objectives. If fiscal authorities are the dominant players, monetary policy instruments are rendered less effective. As monetary policy evolves from a transitional setting of fiscal dominance, issues like direct access of government to central bank credit becomes important and crucial for fiscal-monetary coordination.
- ? Eleventh, policy coordination is also an important issue facing economies linked by trade and capital flows. In an increasingly synchronised business cycle environment, international policy coordination becomes extremely important.
- ? Twelfth, internationally, there has been more awareness that policy effectiveness is constrained by uncertainty. In fact, in many countries, the central bank projections are now published in the form of a fan chart rather than point estimates.

The stance of monetary policy and the rationale are communicated to the public in a variety of ways, the most important being the annual monetary policy statement of Governor Jalan in April and the mid-term review in October. The statements have become over time more analytical, at times introspective and a lot more elaborate. Further, the statements include not only monetary policy stance or measures but also institutional and structural aspects. The monetary measures are undertaken as and when the circumstances warrant, but the rationale for such measures is given in the Press Release and also statements made by Governor and Deputy Governors unless a deliberate decision is taken not to do so on a contemporaneous basis. The sources for appreciating the policy stance encompass several statutory and non-statutory publications, speeches and press releases. Of late, the RBI website has become a very effective medium of communication and it is rated by experts as one of the best among central bank websites in content, presentation and timeliness. The RBI's communications strategy and provision of information have facilitated conduct of policy in an increasingly market-oriented environment.

Several new institutional arrangements and work processes have been put in place to meet the needs of policy making in a complex and fast changing world. At the apex of policy process is Governor, assisted closely by Deputy Governors and guided by deliberations of a Board of Directors. A Committee of the Board meets every week to review the monetary, economic, financial conditions and advice or decide appropriately. Much of the data used by the Committee is available to the public with about a week's lag. There are several other standing and *adhoc* committees or groups of the Board and Board for Financial Supervision plays a critical role in regard to institutional developments. Periodic consultations with academics, market participants and financial intermediaries take place through Standing Committees and *Ad Hoc* Groups, in addition to mechanisms such as resource management discussions with banks. Within the RBI, the supervisory data, market information, economic and statistical analysis are reoriented to suit the changing needs. A Financial Markets Committee focuses on a day-to-day market operations and tactics while a Monetary Policy Strategy Group analyses strategies on an ongoing basis. Periodic consultations with the Government, mainly with Ministry of Finance do ensure coordination. In brief, there are significant technical, analytical, institutional and dynamic inputs that go into the process of making monetary policy.

Objectives

Although there has not been any explicit legislation for price stability, the major objectives of monetary policy in India have been those of maintaining price stability and ensuring adequate flow of credit to the productive sectors of the economy. The relative emphasis between the objectives depends on the underlying economic conditions and is spelt out from time to time. Compared to many other developing economies, India has been able to maintain a moderate level of inflation. Historically, inflation rates in India rarely touched double digit and when they did, in most cases, they were the result of supply shocks either in the form of increase in agricultural commodity prices or in the form of increase in international prices of crude oil.

Transmission Mechanism

The monetary policy framework in India from the mid-1980s till 1997-98 can, by and large, be characterized as a monetary targeting framework on the lines recommended by Chakravarty Committee (1985). Because of the reasonable stability of the money demand function, the annual growth in broad money (M_3) was used as an intermediate target of monetary policy to achieve monetary objectives. Monetary management involved working out a broad money growth through the money demand function that would be consistent with projected GDP growth and a tolerable level of inflation. In practice, however, the monetary targeting approach was used in a flexible manner with a 'feedback' from the developments in the real sector.

While the monetary system in India is still evolving and the various inter-sectoral linkages in the economy are undergoing changes, the emerging evidences on transmission channel suggest that the rate channels are gradually gaining importance over the quantum channel. The econometric evidence produced by the Third Working Group on Money Supply (1998) indicated that output response to policy operating through the interest rate was gaining strength. Similarly,

important indicator, information pertaining to other monetary and financial indicators should also be taken into account seriously while formulating monetary policy, especially in view of the sweeping changes in the financial sector in India in recent years. From the year 1998-99, RBI announced that henceforth it would follow a multiple indicator approach. In this approach, interest rates or rates of return in different markets along with movements in currency, credit, fiscal position, trade, capital flows, inflation rate, exchange rate, refinancing and transactions in foreign exchange – available on high frequency basis – are juxtaposed with output data for drawing policy perspectives. In a way, such a shift was a logical outcome of measures taken over the reform period since the early 1990s.

Operating Procedures

In the pre reform period prior to 1991, given the command and control nature of the economy, the Reserve Bank had to resort to direct instruments like interest rate regulations, selective credit control and the cash reserve ratio (CRR) as major monetary instruments. These instruments were used intermittently to neutralize the monetary impact of the Government's budgetary operations.

The administered interest rate regime during the earlier period kept the yield rate of the government securities artificially low. The demand for them was created through intermittent hikes in the Statutory Liquidity Ratio (SLR). The task before the Reserve Bank of India was, therefore, to develop the markets to prepare the ground for indirect operations.

As a first step, yields on government securities were made market related. At the same time, the RBI helped create an array of other market related financial products. At the next stage, the interest rate structure was simultaneously rationalized and banks were given the freedom to determine their major rates. As a result of these developments, RBI could use OMO as an effective instrument for liquidity management including to curb short-term volatilities in the foreign exchange market.

Another important and significant change introduced during the period is the reactivation of the Bank Rate by initially linking it to all other rates including the Reserve Bank's refinance rates (April 1997). The subsequent introduction of fixed rate repo (December 1997) helped in creating an informal corridor in the money market, with the repo rate as floor and the Bank Rate as the ceiling. The use of these two instruments in conjunction with OMO enabled RBI to keep the call rate within this informal corridor for most of the time. Subsequently, the introduction of Liquidity Adjustment Facility (LAF) from June 2000 enabled the modulation of liquidity conditions on a daily basis and also short term interest rates through the LAF window, while signaling the stance of policy through changes in the Bank Rate.

Gains from Reform

It has been possible to reduce the statutory preemption on the banking system. The Cash reserve Ratio (CRR), which was the primary instrument of monetary policy, has been brought down from 15.0 per cent in March 1991 to 5.5 per cent by December 2001. The medium-term objective is to bring down the CRR to its statutory minimum level of 3.0 per cent within a short period of time. Similarly, Statutory Liquidity Ratio (SLR) has been brought down from 38.5 per cent to its statutory minimum of 25.0 per cent by October 1997.

It has also been possible to deregulate and rationalise the interest rate structure. Except savings deposit, all other interest rate restrictions have been done away with and banks have been given full operational flexibility in determining their deposit and lending rates barring some restrictions on export credit and small borrowings. The commercial lending rates for prime borrowers of banks has fallen from a high of about 16.5 per cent in March 1991 to around 10.0 per cent by December 2001.

In terms of monetary policy signals, while the Bank Rate was dormant and seldom used in 1991, it has been made operationally effective from 1997 and continues to remain the principal signaling instrument. The Bank Rate has been brought down from 12.0 per cent in April 1997 to 6.5 per cent by December 2001. It is envisaged that the LAF rate would operate around the Bank Rate, with a flexible corridor, as more active operative instrument for day-to-day liquidity management and steering short-term interest rates.

A contrasting feature in the positions between 1991 and 2001 is India's foreign exchange

foreign currency assets, on the other hand, completely altered the balance sheet of the Reserve Bank.

Large capital inflows have been accommodated by the Reserve Bank while its monetary impact has been sterilized through OMO. This has helped in reducing the government's reliance on credit from RBI. Consequently, there has been secular decline in monetised deficit, and in the process net foreign exchange assets of RBI have become the principal contributor to reserve money expansion in the recent period.

Tasks before RBI

These are impressive gains from reform but there are emerging challenges to the conduct of monetary policy in our country. Thus, while the twin objectives of monetary policy of maintaining price stability and ensuring availability of adequate credit to the productive sectors of the economy have remained unchanged, capital flows and liberalization of financial markets have increased the potential risks of institutions, thus bringing the issue of financial stability to the fore. Credit flow to agriculture and small- and medium-industry appears to be constrained causing concerns. There are significant structural and procedural bottlenecks in the existing institutional set up for credit delivery. The pace of reforms in real sector, particularly in property rights and agriculture also impinge on the flow of credit in a deregulated environment. The persistence of fiscal deficit, with the combined deficit of the Central and State Governments continuing to be high, draws attention to the delicate internal and external balance.

It is necessary to recognize the existence of the large informal sector, the limited reach of financial markets relative to the growing sectors, especially services, and the overhang of institutional structure that tend to constrain the effectiveness of monetary policy in India. The road ahead would be demanding and the Reserve Bank would have to strive to meet the challenge of steering the structurally transforming economy from a transitional phase to a mature and vibrant system and increasingly deal with alternative phases of the business cycle. Some of the immediate tasks before RBI are presented to provoke debate and promote research.

Modeling Exercises

In addressing a gathering of elite econometricians assembled here, a mention should be made about developments in monetary modeling. It is well recognized that monetary policy decisions must be based on some idea of how decisions will affect the real world and this implies conduct of policy within the framework of a model. As Dr. William White of Bank for International Settlements (BIS) mentioned in an address recently in RBI, "the model may be as simple as one unspecified equation kept in the head of the central bank Governor, but one must begin somewhere. Economics may not be a science, but it should at least be conducted according to scientific principles recognizing cause and effect". While reliance on explicit modeling was rather heavy in some central banks, particularly in the 1960 and 1970s, there has been increasing awareness among the policy markers of the limitations of such models for several reasons. It is difficult to arrive at a proper model for any economy with the degree of certainty that policy makers want especially in view of observed alterations in the private sector behaviour in response to official behaviour. Further, data to monitor the economy are sometimes inadequate, or delayed, and often revised. It is said that in regard to modern economies, not only the future but even the past is uncertain, due to significant revisions in data. The process of deregulation coupled with technological progress has led to increasing role for market prices and consequently more complexities for establishing relationships in an environment where everything happens very fast, and in a globally interrelated financial world. In brief, there is need to recognize the complexities in model building for monetary policies and approach it with great humility and a dose of skepticism but ample justification for such modeling work certainly persists.

It is felt that this is an appropriate time to explore more formally the relationship among different segments of the markets and sectors of the economy, which will help in understanding the transmission mechanism of the monetary policy in India. With this objective in mind, RBI had already announced its intention to build an operational model, which will help the policy decision process. An Advisory Group with eminent academicians like Professors Mihir Rakshit, Dilip Nachane, Manohar Rao, Vikas Chitre and Indira Rajaraman as external experts and a team from within the RBI were set up for developing such a model.

implications of the monetary policy measures on the real economy. On the basis of the advice of eminent experts in the Advisory Group, it has been decided to modify the approach.

The current thinking in RBI is broadly on the following lines: the short term liquidity model making use of high frequency data will be explored. Accordingly, the interaction of the financial markets with monetary policy have been examined with weekly data focusing mainly on policy measures and different rates in the financial markets. Observations in the operational framework of the model is limited as the LAF has been operationalised only a year ago. A crucial aspect in an exercise is the forecast of currency in circulation.

The intention of RBI is to expedite the technical work in this regard and seek the advice of individual members of Advisory Group on an ongoing basis both at formal and informal levels. It is expected that the draft of the proposed model would be put in public domain shortly. RBI would seek the active participation of the interested econometricians in the debate on the draft model and give benefit of advice to RBI for finalizing and adoption.

Reduction in CRR

Among the unrealized medium-term objectives of reforms in monetary policy, the most important is reduction in the prescribed CRR for banks to its statutory minimum of 3.0 per cent. The movement to 3.0 per cent can be designed in three possible ways, viz., the traditional way of pre-announcing a time-table for reduction in the CRR; reducing CRR as and when opportunities arise as is being done in recent years; and as a one-time reduction from the existing level to 3.0 per cent under a package of measures.

In the initial years, the first approach was effective but had to be abandoned when the timetable had to be disrupted to meet the eruption of global financial uncertainties and pressures on forex market. Hence, the second approach of lowering CRR when opportunities arise has been adopted, and now it has been brought down to 5.5 percent. However, if it is felt that this approach takes a longer time and a compressed time-frame is desirable to expedite development of financial markets, it is possible to contemplate a package of measures in this regard. The package could mean the reduction of CRR to the statutory minimum level of 3.0 per cent accompanied by several changes such as in the present way of maintenance of cash balances by banks with RBI. With the lagged reserve maintenance system now put in place, banks can exactly know their reserve requirements. With the information technology available with banks and with the operationalisation of Clearing Corporation of India Ltd. (CCIL) shortly and with the development of repo market, it would be appropriate if CRR is maintained on a daily basis. However, till banks adjust to such changes in the maintenance of CRR, a minimum balance of 95 per cent of the required reserves on a daily basis may have to be maintained when CRR is reduced to 3.0 per cent. The other elements of package have to be worked out carefully.

Access to Call Money Market

An important related component of ongoing reform relates to restricting the call money market to banks and Primary Dealers (PDs). Several measures have been initiated in this regard but in view of the growing importance attached to stability in the financial system and the growing alternatives to access liquidity management through activation of repos facilitated by CCIL, there is a strong case to impose some limits on access to non-collateralised borrowing through call money even under the dispensation of restricted participation only to banks and PDs. The call money window should be used to iron out temporary mismatches in liquidity and banks should not use this on a sustained basis as a source of funding their normal requirements. A beginning has been made by prescribing for access to call money a ceiling of 2.0 per cent of aggregate deposits in respect of urban co-operative banks (UCBs). Such a stipulation can be extended to all commercial banks and with some modifications such as, an alternative of 25.0 to 50.0 per cent of their net owned funds. If any bank has any temporary need to go beyond the ceilings prescribed for access to call money, RBI could consider such requests to alleviate possible shocks to individual banks. Similarly, once the repo market develops, PDs should reduce and in fact consider eliminating their access to the call money market. There is an opinion that such restrictions of access to call money in Indian conditions would add to stability in financial markets and help develop term money market. A final decision would no doubt be taken after discussions

operationalisation of CCIL and attracting non-banks also into an active repo market. The effectiveness of LAF thus will be strengthened with a pure inter-bank call/notice money market in place coupled with growth of repo market for non-bank participants. The LAF operations combined with judicious use of OMOs are expected to evolve into a principal operating procedure of monetary policy of RBI. To this end, RBI may have to reduce substantially the liquidity through refinance to banks and PDs. For example, if RBI intends to tighten the money market conditions through LAF, the automatic access of refinance facility from the RBI to banks and PDs may reduce the effectiveness of such an action and thereby cause transmission losses of monetary policy. It may be appropriate to note that in most of the developed financial markets, the standing facilities operate at the margin.

At present RBI provides standing facilities comprising the support available to banks under Collateralized Lending Facility (CLF) and export credit facility to banks, and liquidity support to PDs. One way of reducing the standing facility will be to eliminate CLF from the standing facilities and reducing the present ratio of normal and back-stop facilities. The existing methodology of calculating eligible export credit refinance continues till March 2002 and RBI has expressed its intention of moving away from sector specific refinance. As CRR gets lowered and repo market develops, the refinance facilities should also be lowered giving more effectiveness to the conduct of monetary policy.

Towards International Standards

As part of the ongoing process of reforms, it is necessary to improve our standards, codes and practices in matters relating to financial system and bring them on par with international ones. One of the Advisory Groups with Shri M. Narasimham as Chairman and Shri S.S. Tarapore as a member, assessed the extent of India's compliance with international standards and codes in the area of 'Transparency in Monetary and Financial Policies'. Noting that RBI's policies and operations largely conform to the IMF Code, the Group offered a set of recommendations for making India fully compliant with the Codes.

First, the Group recommended that the objective of monetary policy should be set out by the Government, as part of its overall economic policy package, and the Government should be obliged to seek parliamentary debate on these objectives as also any changes in these objectives thereafter. The Group further suggested that the Government should also consider prescribing to the RBI single objective such as a medium-term inflation while the Government would have for itself a clearly set out hierarchy of objectives for which it could use its other instruments of policy. However, RBI is of the view that at the current stage of institutional development and fiscal stance, coordination and harmony are of paramount importance though there is need for clearer demarcation of responsibilities and accountability between RBI and the Government with appropriate degrees of transparency. Moving in this direction, RBI is divesting all ownership functions as also term lending functions, subject to approvals by the Government.

Second, the Group recommended amendments to relevant legislation to accord greater operational flexibility to the RBI for the conduct of monetary policy and regulation of financial system. In the light of the Finance Minister's budget statement, RBI has transmitted proposals for legislative changes in the Reserve Bank of India Act, which is under the consideration of the Government. These proposals if endorsed by the Parliament would accord greater operational flexibility to the RBI for conduct of monetary policy.

Third, it was suggested that the Government should set up its own independent debt management office to take over the present functions discharged by the RBI, and thus avoid conflict of interest in conduct of monetary policy. RBI in its annual monetary policy of 2001, has announced progress made in this regard and its intention to divest itself of the debt management function. An enabling proposal to delink the function of debt management of the Government from the Reserve Bank has been made in the RBI (Amendment) Bill 2001. The Government has also decided, in principle, to delink these functions.

Fourth, the Group recommended that RBI should set up Monetary Policy Committee (MPC) as a committee of the Board, by regulation, requiring no specific changes in the law. However, at present, no view has been taken in the matter of either setting up such a Committee or disclosing the deliberations leading to monetary policy actions. In this context, it needs to be noted

Research Agenda

It is useful to identify a research agenda where both the academic community and policy makers could engage productively. For example, some academic work has been done on inflation targetting in India. Considering that inflation targetting is in no case a panacea but a sensible possible option, many central banks have adopted this strategy and in India also, this issue of inflation targetting is being debated. Before taking a view on this, some related issues like measurement of inflation, core inflation, choice of price variables (to include asset prices or not) may have to be addressed. Similarly, with RBI pursuing the twin objectives of monetary policy and operating on short-term interest rates, it is essential to properly study the transmission mechanism of monetary policy. Related issues include measurement of potential output,. assessment of the lag structure of different variables with respect to monetary policy decisions. Some light on these crucial areas will help the policy makers. At the present juncture of segmented money market lacking in depth and width, development of yield curve and term structure of interest rates may not appear to be critical, but as we move along with development of financial markets, these important areas have to be explored. Moreover, the relationship between bank credit and output may also require indepth analysis. Finally, the last chapter of the Report on Currency and Finance 2000-01 attempts to present the estimated characteristics of sectoral behaviour, inter-linkages and the underlying dynamics of the overall economy in the form of a structural macroeconomic model. This model is the result of the on-going research work among the professionals of RBI. This provides a basis for further research work in the academic community also. These are some illustrative items of significance for further research in the realm of monetary policy.

Concluding Remarks

In this lecture, I have attempted to focus on the conduct of monetary policy and highlighted some of the immediate tasks. In case, there is interest in an overview of theory and analytics, especially in the context of role of monetary policy in revitalizing growth in India, I would urge you to refer to the Report on Currency and Finance 2000-01, released yesterday. The challenges ahead are aptly summarized in the concluding paragraph of the chapter on Growth, Inflation and the Conduct of Monetary Policy of the Report, which states "The conduct of monetary policy in India would continue to involve the constant rebalancing of objectives in terms of the relative importance assigned, the selection of instruments and operating frameworks, and a search for an improved understanding of the working of the economy and the channels through which monetary policy operates".